

L 2339-66

ACCESSION NR: AT5022106

From Card 5/6

ENCLOSURE: 03

0

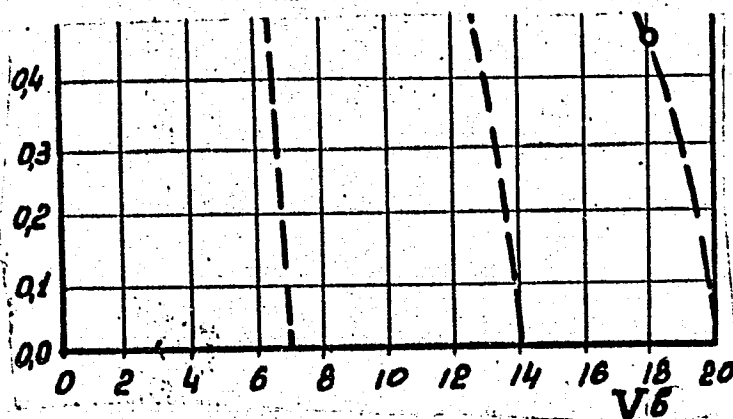


Fig. 2. Change in flare spin frequency during cut-off of secondary electron emission. Argon.  $U_a = 200$  v.  $I_a$  (anode current) 10 mA;  $H = 575$  oersteds;  $L = 30$  cm,  $O - P = 2 \times 10^{-5}$ ;  $\phi - P = 4 \times 10^{-5}$ ;  $\bullet - P = 6 \times 10^{-5}$  mm Hg

*Del*

Card 6/6

DOBROKHOTOV, Yu. S.

"Instruction in Working with a Topographic Altimeter Manufactured by the General Scientific Research Inst. of Geodesy Aerial Photography and Cartography and Built on the Principles of D. I. Mendeleyev" Moscow 1940.

DOBROKHOTOV, YU. S.

PA 78T28

USSR/Geophysics

Apr 1948

Atmosphere - Disturbances

"Observations of Local Atmospheric Disturbances From an Aircraft," Yu. S. Dobrokhotov, 1 p

"Priroda" No 4

Author took part in the air volcanological expedition to Kamchatka organized by Acad Sci USSR in 1946. Here he describes "bumps" of aircraft when flying over volcanoes and elsewhere.

78T28

...100, 10. S.

PA 43/4912

USSR/Aeronautics  
Photography, Aerial

Mar/Apr 49

"Curvature of the Horizon Line (Shown) on an Aerial  
Photograph," Yu. S. Dobrokhotor, 41 pp

"Is It True USSR, Ser Georg 1 Geofiz." No 2

At present flying altitudes, the line showing the  
horizon on an aerial photograph has a noticeable  
curvature which, if ignored, can cause considerable  
error in determining the angle of bank of an air-  
plane. Claims that this error can be overcome  
with the help of the suggested "leveling of the  
line." Analyzes ways of measuring aerial photo-

43/4912

USSR/Aeronautics

(Cont'd)

Mar/Apr 49

graphs where errors are eliminated. Gives table  
and diagrams of experimental results.

43/4912

DOBROKHOTOV, Yu. S.

Verbatim: - "Geometric structure of craters of certain volcanoes in Kamchatka,"  
(According to the 1946 serial survey material), Byulleten' Vulkanol. stantsii  
na Kamchatke, No. 16, 1949, p. 26-33

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949.)

DOBROKHOTOV, YU. S.

✓ USSR/Geography - Aerial Mapping Dec 51

"Aerial Mapping of Volcanoes during Expeditions of  
Academy of Sciences USSR," Yu. S. Dobrokhotoy

"Priroda" No 12, pp 12-19

In 1946 an expedition was organized under the  
guidance of Acad A. N. Zavaritskiy for aerial  
mapping of Kamchatka's volcanoes. Work was prepd  
and performed by author. Equipment used: stereos-  
copic automatic cameras of 30 cm focal length and  
23 x 23 cm, size and 21 cm focal length and 18x 18  
cm size. A.Ye. Svyatoslavskiy, geologist of renown,  
contributed in performance. Results were so sat-  
isfactory that expedition was repeated in 1947 over  
Caucasus mountain chain.. 219T57

DOBROKHOTOV, YURIY SERGEYEVICH

~~DOBROKHOTOV, Yuriy Sergeyevich; TROITSKIY, Boris Vladimirovich; ENTIN, I.I.,~~  
redaktor; VASIL'YEVA, V.I., redaktor; SHLENSKIY, I.A., tekhnicheskii  
redaktor [deceased]

[Manual on the use of a topographic altimeter] Rukovodstvo po rabote  
s topograficheskim vysotomerom. Moskva, Izd-vo geodexicheskoi lit-ry,  
1954. 79 p. (MIRA 8:4)  
(Altimeter)

DOBROKHOTOV, Yu. S.

"Approximate Method of Determining the Cruising Altitude From the Image of the Horizon Line"  
Tr. Labor. aerometodov AN SSSR, 3, 1954, 25-31

The method is based on using photographs of the horizon. A system of equations is derived, relating lines of the horizon image with the values sought. The solution of these equations by the method of approximations yields the cruising altitude, the angle of inclination, and the geodetic depression of the horizon. The errors arising in computation are smaller than those enclosed in a instrument reading. (RZhAstr, No 10, 1955)

SO: Sum-No 787, 12 Jan 56



DOBROKHOTOV, Yu.S.; SVYATLOVSKIY, A.Ye.

Morphology and geological structure of volcanic cones in the Kostakan  
Gorge. Trudy Lab.aeromet. 3:89-95 '54. (MIRA 8:8)  
(Kostakan Gorge--Volcanoes) (Kamchatka--Photography, Aerial)

DOBROKHOTOV, Yu.S., kandidat tekhnicheskikh nauk.

Study of periodic changes in gravity (in the Geophysical Institute).  
Vest.AN SSSR 24 no.4:85-87 Ap '54. (MLRA 7:5)  
(Gravitation)

*DobrokhotoV, Y.S.*

KEL'ZON, , Viktor Saulovich, kand.tekhn.nauk; NEPOMNYASHCHIY, Samuil  
Isaakovich, inzh.; DOBROKHOTOV, Yuriy Sergeyevich, kand.tekhn.  
nauk; UDAL'TSOV, A.N., glavnyy red.; TOLCHINSKIY, Ye.M., inzh.  
red.

[Miniature self-balancing electron bridge. Differential thermometer  
with photographically recorded readings] Malogabaritnyi samobalansi-  
ruiushchiisia elektronnyi most. Differential'nyi termometr s foto-  
graficheskoi zapis'iu pokazanii. Moskva, 1956. 12 p. (Pribory i  
standy. Tema 4, no.P-56-470) (MIRA 11:2)

1. Moscow. Vsesoyuznyy institut nauchnoy i tekhnicheskoy informatsii.  
Filial.  
(Thermometers)

ALEKSANDROV, S.Ye.; DOBROKHOTOV, Yu.S. (Moskva).

Ice "flowers". Priroda 45 no.9:113-114 S '56. (MIRA 9:10)  
(Arctic regions--Ice)

DOBROKHOTOV, Yu.S.

Determining the coordinates of points on ice by radio direction  
finders. Sbor. st. po geod. no.11:49-51 '60.

(MIRA 13:8)

(Arctic regions--Geographical positions)

(Radio direction finders)

88830

S/035/61/000/002/016/016  
A001/A001

3.9000(1041,1109,1327)

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1961, No. 2,  
p. 32, 20234

AUTHORS: Dobrokhotov, Yu.S., Ivanova, M.V., Shcheglov, S.N.

TITLE: The Gravimetric Polygon at the Moscow State University

PERIODICAL: V sb.: "Gravometr. issledovaniya", No. 1, Moscow, AN SSSR, 1960,  
pp. 57 - 60 (Engl. summary)

TEXT: The Institut fiziki Zemli (Institute for Physics of the Earth) at AS USSR acquired four GS-11 gravimeters ( ## 124, 126, 134 and 135) designed for measuring tidal variations of gravity. For the control gaging of these gravimeters, a gravimetric polygon was established in the MGU building at the Leninskiye gory (Lenin Mountains); the polygon consisted of four points located in the basement, 8th, 18th and 28th stories. A freight elevator was used for transporting gravimeters. Standard values of  $\Delta g$  were determined with nine gravimeters ГАЗ-3 (GAE-3) observed in nine routes of the sequence 0-8-18-28-18-8-0. Duration of the route did not exceed 1 hour. The root-mean-square error of one measurement with the

Card 1/2

88830

S/035/61/000/002/016/016

A001/A001

The Gravimetric Polygon at the Moscow State University

GAE-3 gravimeter was equal to  $\pm 0.42$  mgal; the weight of such a measurement was adopted to be unity. Measurements with GS-11 gravimeters were performed in five routes of the sequence 0-8-18-28-18-8-0. The duration of one route seldom exceeded 1 hour. The root-mean-square error of one measurement with the GS-11 gravimeter was equal to  $\pm 0.06$  mgal; the weight was adopted to be 50. The standard values of  $\Delta g$  and coefficients of GS-11 gravimeters were determined from the joint adjustment of measurements with gravimeters GAE-3 and GS-11. The relative error in coefficients did not exceed 0.14%, and differences with the data of the firm did not exceed 0.11%. The adjusted values of  $\Delta g$  relative to the 28th story turned out to be (in mgal): for the basement  $+40.046 \pm 0.053$ ; for the 8th story  $+28.559 \pm 0.038$ , and for the 18th story  $+15.899 \pm 0.023$ .

P. Shokin

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

3,1800

22407

S/035/61/000/005/038/042  
A001/A101

AUTHORS: Dobrokhotov, Yu.S., Belikov, B.D., Kramer, M.V., Pertsev, B.P.  
TITLE: Observations of tidal variations of gravity acceleration at Pulkovo  
in 1958  
PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 5, 1961, 33, ab-  
stract 50214 (V sb. "Gravimetr. issledovaniya", no. 1, Moscow, AN  
SSSR, 1960, 7 - 14, Engl. summary)

TEXT: Observations of gravity tidal variations were conducted at Pulkovo  
in the basement of the seismic station from April to October, 1958. Two gravi-  
meters of GC-11 type were employed. The tides were recorded first by means of  
photoelectrical recorders of the firm Bruno Lange and then by means of photore-  
corders developed in the Institut fiziki Zemli (Institute of Physics of the Earth).  
Altogether 8 monthly series of continuous observations were made during this  
period. The harmonic analysis of observations was performed on an electronic  
computer. The analysis yielded the following mean values of quantities  $\bar{O} = 1 - 3/$   
 $/2k + h$  and phase shifts of main waves of the lunar-solar tide:

Card 1/2



22401

S/035/61/000/005/038/042  
A001/A101

Observations of tidal variations ...

| Wave  | Phase shift                         |
|-------|-------------------------------------|
| $K_1$ | $1.194 \pm 0.012 + 2.6 \pm 0.6$     |
| $O_1$ | $1.180 \pm 0.008 + 1.8 \quad 1.1$   |
| $M_2$ | $1.238 \quad 0.017 + 2.1 \quad 0.9$ |
| $S_2$ | $1.217 \quad 0.042 + 1.6 \quad 2.1$ |
| $N_2$ | $1.222 \quad 0.076 + 6.0 \quad 4.0$ |

Positive phase shifts correspond to lag of observed tides relative to theoretical ones.

B. Pertsev

[Abstracter's note: Complete translation]

Card 2/2

22402

S/035/61/000/005/039/042

A001/A101

3,1800

AUTHORS: Pariyakiy, N.N., Dobrokhotov, Yu.S., Pertsev, B.P., Kramer, M.V.,  
Belikov, B.D., Barsenkov, S.N.

TITLE: Observations of tidal gravity variations at Krasnaya Pakhra

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 5, 1961, 33, ab-  
stract 5G215 (V sb. "Gravimetr. issledovaniya", no. 1, Moscow; AN  
SSSR, 1960, 21 - 26, Engl. summary)

TEXT: Observations were conducted in a special basement near Moscow in 4  
km from Krasnaya Pakhra. Six monthly series of observations with four GS-11 gravi-  
meters were made at various times from December 1957 to February 1959. The gravi-  
meters were calibrated in the vertical gravimetric polygon at the MGU building.  
The harmonic analysis of tidal variations was performed on an electronic computer.  
The following mean values of quantities being determined  $\delta = 1-3/2k + h$  and phase  
shifts  $\Delta\varphi$  were obtained:

for diurnal waves

$$\delta = 1.163 \pm 0.016; \Delta\varphi = 1^{\circ}.5 \pm 0^{\circ}.7$$

for semidiurnal waves

$$\delta = 1.180 \pm 0.018; \Delta\varphi = 4^{\circ}.1 \pm 1^{\circ}.0$$

[Abstracter's note: Complete translation]

B. Pertsev

Card 1/1

DOBROKHOTOV, Yu.S.; OSTROVSKIY, A.Ye.; PERTSEV, B.P.; BULANZHE, Yu.D.,  
doktor fiziko-matem. nauk, otv. red.; ZHITNIKOVA, S.A., red.;  
UL'YANOVA, O.G., tekhn. red.

[Gravimetric and inclinometric stations for the observation of  
earth tides] Gravimetricheskie i naklonomernye stantsii dlia na-  
bliudenii zemnykh prilivov. Otv. red. IU.D.Bulanzhe. Moskva, Izd-  
vo Akad. nauk SSSR, 1961. 24 p. (MIRA 14:11)  
(Tides) (Geophysical observatories)

40018  
S/035/62/000/008/086/090  
A001/A101

3.5800

AUTHOR: Dobrokhotoy, Yu. S.

TITLE: The differential barograph with photographic recording of readings

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 8, 1962, 32,  
abstract 8G264 ("Tr. In-ta fiz. Zemli AN SSSR, 1962, no. 24, 116 -  
123)

TEXT: The instrument is devised for continuous recording of atmospheric pressure. Its sensitivity is 10 - 12 times as high as that of a mercury barometer. It is based on Mendeleev's differential barometer. A gaged glass tube is soldered into a glass flask whose lower part is filled with a liquid (dibutyl phthalate or silicon-organic liquid). The tube's lower end almost reaches the flask bottom and is always submerged into the liquid, whereas the upper end is open. The flask is connected with the atmosphere through a valve and a tube filled with calcium chloride. To record possible fluctuation of temperature, the flask is placed into the ampoule of a differential thermometer which is filled with the same liquid as the flask. The thermometer with the barometer is placed into a Dewar vessel filled with water. Variations of atmospheric pressure are determined by the formula:

Card 1/2

The differential barograph with...

S/035/62/000/008/086/090  
A001/A101

$$\Delta B = a l + b B l + c k B m,$$

X.

where  $l$  and  $m$  are displacements of liquid levels in the barometer tubes,  $B$  is atmospheric pressure at the initial instant of measurements,  $b$  and  $c$  are constant coefficients,  $a$  and  $k$  are coefficients depending on temperature. A difference in optical properties of glass tubes, empty and filled with liquid, is made use of for recording barograph readings. The optical system is described which transmits the image of the liquid level in tubes onto the moving photographic paper (contrast paper, 200-mm wide), as well as the schematic diagram of the tape-drawing mechanism a device for making time marks on the paper, and a device for determining coefficients  $b$  and  $c$ . Device dimensions are: height 65 cm, length 35 cm and width 25 cm.

V. Sinyagina

[Abstracter's note: Complete translation]

Card 2/2

ACCESSION NR: AR4033594

8/0189/64/000/002/0027/0027

SOURCE: Ref. zh. Geofiz., Abs. 20192

AUTHOR: Dobrokhotoy, Yu. S.; Lytsenko, V. I.

TITLE: Observations of tidal changes of gravity at Kiev

CITED SOURCE: Sb. Izuch. semn. prilivov. No. 3. M., AN SSSR, 1963, 40-53

TOPIC TAGS: gravimetry, earth tide, tidal gravity change, GS-11 gravimeter, lunar-solar tide

TRANSLATION: Earth tide observations were made in the cellar of a service building of the Main Astronomical Observatory of the Academy of Sciences Ukrainian SSR from July 1960 through June 1961. The tides were recorded with two GS-11 gravimeters. Due to various kinds of interference (for the most part the high humidity in the initial period of observation) the total duration of the record suitable for processing was 11.5 months. The observation method used did not differ from that employed at other stations. Harmonic analysis was carried out with a displacement of the central moment of the series by 10 days. An evaluation of accuracy was made using the results of independent series of observations. The following mean values

Card 1/2

ACCESSION NR: AR4033594

$\delta = 1/h - 2/2k$  (first column) and phase shift  $\Delta Q$  (second column) were obtained for the five principal waves of the lunar-solar tide:

|       |                   |                      |
|-------|-------------------|----------------------|
| $M_2$ | $1.195 \pm 0.010$ | $-2.8 \pm 0.4^\circ$ |
| $S_2$ | $1.239 \pm 0.026$ | $-2.9 \pm 0.6^\circ$ |
| $N_2$ | $1.173 \pm 0.041$ | $-1.1 \pm 1.4^\circ$ |
| $K_1$ | $1.149 \pm 0.011$ | $-1.5 \pm 0.4^\circ$ |
| $O_1$ | $1.164 \pm 0.018$ | $+1.0 \pm 0.5^\circ$ |

A comparison of the results obtained at Kiev and the results of observations at Pulkovo and Krasnaya Pakhra revealed that all the observations made in the European part of the USSR give close values  $\delta$ . B. Pertsev

DATE ACQ: 31Mar64

SUB CODE: AS

ENCL: 00

Card 2/2

ACCESSION NR: AR4033588

2/0169/64/000/002/0028/0028

SOURCE: Ref. zh. Geofiz., Abs. 20186

AUTHOR: Dobrokhotoy, Yu. S.

TITLE: Repeated observations of tidal changes of gravity at Krasnaya Pakhra

CITED SOURCE: Sb. Izuch. zemn. prilivov. No. 3. M., AN SSSR, 1963, 54-58

TOPIC TAGS: gravimetry, earth tide, tidal gravity change, GS-11 gravimeter, lunar-solar tide

TRANSLATION: Three monthly series of observations of tidal variations of gravity with a GS-11 gravimeter have been made at Krasnaya Pakhra. During the period of observations the diurnal temperature variations in the cellar did not exceed 1°C and humidity was held in the range 60-70%. Harmonic analysis was carried out by the Portsev method. Taking into account earlier observations, for Krasnaya Pakhra station the following are the values  $\delta = 1/h - 3/2k$  (first column) and phase shift  $\Delta Q$  (second column) for the five principal waves of the lunar-solar tide.

Card 1/2



ACCESSION NR: AR4033568

|                |               |             |
|----------------|---------------|-------------|
| M <sub>2</sub> | 1.188 ± 0.017 | -5.2 ± 0.7° |
| S <sub>2</sub> | 1.184 ± 0.024 | -5.6 ± 0.8° |
| N <sub>2</sub> | 1.175 ± 0.031 | -4.4 ± 1.5° |
| K <sub>1</sub> | 1.184 ± 0.022 | -1.7 ± 0.4° |
| O <sub>1</sub> | 1.144 ± 0.016 | -1.4 ± 1.0° |

DATE ACQ: 31Mar64

SUB CODE: 4AS

ENCL: 00

Card 2/2

ACCESSION NR: AR4033590

8/0169/64/000/002/0026/0027

SOURCE: Ref. zh. Geofiz., Abs. 20168

AUTHOR: Dobrokhotoy, Yu. S.

TITLE: Errors in determination of the calibration coefficient when recording tides caused by displacement of a gravimeter null point

CITED SOURCE: Sb. Izuch. zemn. prilivov. No. 3. M., AN SSSR, 1963, 92-97

TOPIC TAGS: calibration coefficient, gravimetry, gravimeter, earth tide, null point displacement

TRANSLATION: In the method used for determination of the scale factors for the record when recording earth tides with GS-11 gravimeters it was assumed that the drift of the instrument null point is linear and retains its character after displacements of the elastic system. However, experience has revealed that this assumption is not justified in all cases. This explains the appreciable scatter in the calibration coefficients determined periodically during the recording of earth tides. Since the drift of the instrument null point is determined in the process of harmonic analysis, its influence on the scale factors can be taken into

Card 1/2

ACCESSION NR: AR4033590

account easily using a formula proposed by the author. The introduction of corrections for drift of the instrument null point into the scale factors of the records obtained at Krasnaya Pakhra and the Shternberg State Astronomical Institute has improved appreciably the convergence of individual values of the scale factor.  
B. Pertsev

DATE ACQ: 31Mar64

SUB CODE: AS

ENCL: 00

Cord 2/2

PARIYSKIY, N.N., doktor fiz.-matem. nauk; DOBROKHOTOV, Yu.S., kand. fiz.-  
matem. nauk

Observations of Soviet geophysicists in Mali. Vest. AN SSSR  
35 no.9:76-78 '65.  
(MIRA 18:9)

DOBRCKHOTOVA, G.P. (L'vov)

Report on the activities of the Lvov Society of Urologists in 1955.  
Urologia 21 no.3:76-77 J1-S '56. (MLRA 9:12)  
(GENITOURINARY ORGANS—DISEASES)

*DOBROKHOTOVA, G.P.*  
DOBROKHOTOVA, G.P. (L'vov)

Report on the activities of the Lvov Urological Society in 1956.  
Urologia 22 no.4:77-79 J1-Ag '57. (MIRA 10:10)  
(GENITOURINARY ORGANS--DISEASES)

USSR/Human and Animal Morphology - Normal and Pathological.  
Pathological Anatomy.

S

Abs Jour : Ref Zhur Biol., No 23, 1958, 106029

Author : Dobrokhotova, G.P.

Inst

Title : *Urologicheskoye izvestiye, L'vovskogo meditsinskogo instituta*  
A Case of a Rare Anomaly in the Development of the  
Bladder, the Urethra, the Genitalia and the Rectum

Orig Pub : Urologiya, 1958, No 2, 53-54

Abstract : In an 8-yearold girl, an absence of the umbilicus, the  
anterior subabdominal wall, and the ten cm long dias-  
tasis of pubic bones was observed. In the lower abdomen  
there was some hernia-like bulging, in which the follow-  
ing were found: an opening to a blind space of ovoid  
shape corresponding probably to the vagina, an opening  
into a globular space corresponding to the urinary blad-  
der without a sphincter and urethra, and somewhat below  
it an opening of the rectum without a sphincter and

Card 1/2

- 30 -

DOBROKHOTOVA, G.P. (L'vov, ul. Solodova, d.3a, kv.14a)

~~Paracystitis.~~ Nov.khir.arkh. no.2:76-77 Mr-Apr '58 (MIRA 11:6)

1. Kafedra urologii (zav. - dots. M.B. Plastunov) L'vovskogo  
meditsinskogo instituta.  
(BLADDER--DISEASES)



DOBROKHOTOVA, G.P. (L'vov)

Activities of the Lvov Urological Society in 1957. Urologia 23  
no.6:69-70 N-D '58.  
(LVOV--UROLOGY--SOCIETIES) (MIRA 11:12)

DOBROKHOTOVA, G.P. (L'vov)

Report on the activities of the Lvov Urological Society in 1958.  
Urologiia 24 no.4:75-76 J1- Ag '59.

(LVOV--UROLOGICAL SOCIETIES)

(MIRA 12:12)

DOBROKHOTOVA, I.

Current status of certain questions in the diagnosis, treatment,  
and prevention of rheumatic fever according to data from foreign  
literature. *Pediatrics* 37 no.4:76-82 Ap '59. (MIRA 12:6)  
(RHEUMATIC FEVER  
review (Rus))

DOBROKHOTOVA, I.A.

Studying possibilities in the use of the amplitude and phase  
measurement method in detecting ore bodies at the Mauk deposit.  
Geofiz.razved. no.4:96-106 '61. (MIRA 14:7)  
(Mauk region—Electromagnetic prospecting)

DOBROKHOTOVA, I.A.; PYATNITSKIY, V.I.

Need to consider the method of field induction and the effect  
of an intrusive medium in the low-frequency inductive method of  
geophysical prospecting. Geofiz. razved. no.8:67-81 '62.

(Electromagnetic prospecting) (MIRA 15:7)

KLASSEN, V.I., doktor tekhn.nauk; LITOVKO, V.I., kand.tekhn.nauk;   
 ZAREMBA, S.A., kand.tekhn.nauk; BLAGOVA, Z.S., inzh.;   
 DOBROKHOTOVA, I.A., inzh.; KARAMYSHEV, A.P., inzh.

Improvement of physical and mechanical properties of a magnetite  
suspension by adding a peptizing agent. Obog.i brik.ugl.  
no.30:50-57 '63.

(MIRA 17:4)

1. Institut gornogo dela imeni Skochinskogo (for Klassen, Litovko, Zaremba). 2. Vsesoyuznyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut po obogashcheniyu i briketirovaniyu ugley (for Blagova, Dobrokhotova). 3. Obogatitel'naya fabrika shakhty imeni Abakumova tresta Rutchenskoyugol' Donetskogo basseyna (for Karamyshev).

*Mich* ✓ Possible role of the vitamins produced by soil micro-organisms in the root nutrition of plants. B. I. Ratner and L. N. Dobrukhovaya (K. A. Timiryazev Inst. Plant Physiol., Moscow). *Fiziol. Rastenii* 3, 101-9 (1956).—Expts. with corn, hemp, and sunflower plants showed that soil supply of vitamins such as thiamine, pyridoxine, and pantothenic acid results in uptake of these by the plant and accumulation of them in leaves and roots, i.e., parts in which vigorous growth processes take place. While 2-yr. expt. with sunflower showed that such extra supply of vitamins B<sub>1</sub>, B<sub>2</sub>, B<sub>6</sub>, and PP, and pantothenic acid somewhat repressed growth of leaves, stems, and seed hulls, but the yield of seeds and their fat content were raised. Ammonia N and org. N tend to be raised by such vitamins, along with increased synthesis of amino acids in the roots. Microbes are regarded as natural suppliers of the vitamins. G. M. K.

2

USSR/Plant Physiology. Mineral Nutrition

I-3

Abs Jour : Ref Zhur - Biol., No 7, 1958, No 29390

Author : Ratner E.I., Kolosov I.I., Ukhina S.F., Dobrokhotova  
I.N., Kazuto O.N.

Inst : Not Given

Title : The Assimilation by Plants of Aminoacids as a Source  
of Nitrogen

Orig Pub : Izv. AN SSSR, ser. biol., 1956, No 6, 64-82

Abstract : Experiments on corn and sunflower were carried out  
in sterile cultures in the Institute of Plant Physiology  
of the Union of Soviet Socialist Republics by the  
method of Shulov as modified by Feodorov. Glycocol,  
aspartic and glutamic acids, and arginine were assimu-  
lated by corn and sunflower plants but their effective-  
ness was considerably lower than the effectiveness of  
mineral Nitrogen. Lysine, alanine, tyrosine and guan-  
ine were assimilated by the corn plants but little.

Card : 1/2



USSR/Plant Physiology. Mineral Nutrition

I-3

Abs Jour : Fef Zhur - Biol., No 7, 1958, No 29390

Phenylalaline was toxic to corn, and in small concentrations after the use of N nitrate had a building effect (the formation of side shoots at the stem base and of a large number of underdeveloped cobs). Aspartic and glutamic acids stimulated the development of roots. It was shown by radioautochromatographic analysis that the roots of plants were able to assimilate amino-acids as whole molecules, and that glyccol was quickly worked over in the roots while thyrozine remained unchanged. Corn plant analysis demonstrated that glyccol, and aspartic and glutaminic acids were decomposed in the roots, and ammonia gas was separated.

Card : 2/2

17(1)

AUTHORS:

Ratner, Ye. I., Dobrokhotova, I. N.

SOV/20-122-5-54/56

TITLE:

On the Nature of the Vitamin Influence Upon the Synthetic Activity of Roots in the Assimilation of Mineral Nitrogen by Plants (K poznaniyu prirody vliyaniya vitaminov na sinteticheskuyu aktivnost' korney pri usvoyenii rasteniyem mineral'nogo azota)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 5, pp 944 - 947 (USSR)

ABSTRACT:

Among the physiologically active substances constantly formed in the processes of the life activity of soil microbes the vitamins take an important place. This mainly refers to the vitamins of group B (Ref 1). As was proved earlier (Ref 2) the B vitamins introduced to the soil are easily absorbed by the roots and then are transported into the organs above ground by the juice. In the young *Hibiscus cannabinus* L. these vitamins are mainly accumulated in the leaves and especially in the roots, i.e. in those "Main Laboratories" where according to modern conceptions

Card 1/5

On the Nature of the Vitamin Influence Upon the  
Synthetic Activity of Roots in the Assimilation of Mineral Nitrogen by  
Plants

SOV/20-122-5-54/56

The processes of metabolism take place most intensely. This character of distribution of the vitamins in their concentration in the plant from the surroundings was also proved in other experiments carried out with peas, in which the plants were enriched with vitamins by the root tuber bacteria (Table 1). As it may be seen the content of a. . three vitamins, especially in the roots, increased without following the increase in nitrogen which was greatest in the leaves. Thus, a similarity of the storage of B vitamins in the roots between a non-legumes (marsh mallow) in a direct concentration and a legume (pea) in a concentration through root tuber bacteria was found. In connection herewith it seems to be necessary to explain the influence of the vitamins on the life activity of the root itself, especially on its metabolic functions. As it was earlier found by the authors (Ref 2) the synthetic activity of sunflower seeds increases jumplike

Card 2/5

On the Nature of the Vitamin Influence Upon the  
Synthetic Activity of Roots in the Assimilation of Mineral Nitrogen by  
Plants

SOV/20-122-5-54/56

under the influence of the vitamins of the group B.  
To explain the nature of this phenomenon the authors  
wanted to trace the influence of the vitamins upon  
the working up of mineral nitrogen in the roots in  
the case of a substitution of nitrate nitrogen by  
ammonium nitrogen under the same pH-conditions. The maize  
type "Belcyaroye psheno" was used for this experiment.  
The results of the analysis are compiled in table 2.  
It may be seen from them that: 1) The classical data  
supplied by D.N.Pryanishnikov (Ref 3) were proved: the  
plants absorb more energetically the ammonium nitrogen  
than the nitrate nitrogen even when the concentration  
of the former in the solution is only half of that of the  
latter. 2) The activity of the maize root differs to a  
great extent in the working up of the two nitrogen forms.  
3) The influence of the vitamins upon the increase of the  
synthetic activity of the roots in the working up of  
the mineral nitrogen absorbed from outside is marked

Card 3/5

On the Nature of the Vitamin Influence Upon the  
Synthetic Activity of Roots in the Assimilation of Mineral Nitrogen by  
Plants

SOV/20-122-5-54/56

only when the nitrate serves as nitrogen source. The ammonium absorbed does not suffer any considerable changes by the vitamins. This fact makes it possible to assume that the vitamins stimulate the activity of the ferment systems which cause the first stage to take place more rapidly; this stage is absolutely necessary for the synthesis of organic compounds in the roots: the reduction of the nitrate form of nitrogen in ammonia. When this stage seems to be secured the level of synthesis of the amine and amide nitrogen from the nitrate nitrogen approaches a level characteristic for plants additionally supplied with ammonium nitrogen. There are 1 figure, 2 tables, and 3 Soviet references.

ASSOCIATION: Institut fiziologii rasteniy im.K.A.Timiryazeva Akademii nauk SSSR ( Institute of Plant Physiology imeni Timiryazev AS USSR)

Card 4/5

DOBROKHODOVA, K. V.

New species of weed from Central Asia. Bot. mat. Gerb., 14, 1951.

1. DOBROKHOTOVA, K. V.
2. USSR (600)
4. Ili River - Fresh-Water Flora
7. Botanical characteristics of lowland basins of the Ili River Delta. Trudy Gidrobiol. ob-va 4 1952.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

DOBROKHOTOVA, K. V.

KAZAKHSTAN REED. Priroda 41, No 6, 1952.



DOBROKHOTOVA, K.V.

Characous algae in biocoenoses of aquatic macrophytes. Trudy  
Gidrobiol.ob-va 5:258-263 '53. (MIRA 7:5)  
(Algae)

DOBROKHOTOVA, K.V.

Role of aquatic plants in the evolution of spawning ponds in the  
Amu Darya Delta. Trudy Lab. ozeroved. 3:86-101 '54. (MLRA 8:2)  
(Amu Darya--Delta--Aquatic plants)

GAMAYUNOVA, A.P.; DOBROKHOTOVA, K.V.; KUZNETSOV, N.M. [deceased]; PAVLOV, N.V.; POLYAKOV, P.P.; SUVOHOVA, R.I., redaktor; ALFEROVA, P.F., tekhnicheskiiy redaktor

[Flora of Kazakhstan] Flora Kazakhstana. Glav. red. N.V.Pavlov. Sost. A.P.Gamayunova, i dr. Alma-Ata. Vol.1. 1956. 352 p.  
(MLRA 9:8)

1. Akademiya nauk Kazakhskoy SSR. Alma-Ata. Institut botaniki.
2. Deystvitel'nyy chlen AN KazSSR (for Pavlov)  
(Kazakhstan--Botany)

DOBROKHOTOVA, K.B.

BAYTENOV, M.B.; GOLOSKOKOV, V.P.; DMITRIYEVA, A.A.; DOBROKHOTOVA, K.B.;  
KUZNETSOV, N.M. [deceased]; POLYAKOV, P.P.; PAVLOV, N.V.,  
akademik, glav. red.; SUVOROVA, P.I., red.; ALFEROVA, P.F., tekhn.  
red.

[Flora of Kazakhstan] Flora Kazakhstan. Glav. red. N.V. Pavlov.  
Sost. M.B. Baitenov, dr. Alma-Ata, Akad. nauk Kazakhskoi SSSR.  
Vol.2. 1958. 289 p. (MIRA 11:7)

1. Akademiya Nauk KazSSR (for Pavlov).  
(Kazakhstan--Botany)

BAYTENOV, M.B.; BYKOV, B.A.; VASIL'YEVA, A.N.; GAMAYUNOVA, A.P.;  
GOLOSOKOV, V.P., kand.biolog.nauk; DOBROKHOTOVA, E.V.;  
KORNILOVA, V.S.; FISTUH, V.V.; PAVLOV, N.V., akademik, glavnyy  
red.; KUBANSKAYA, Z.V., kand.biolog.nauk; SUVOROVA, R.I.,  
red.; ALFEROVA, P.F., tekhn.red.

[Flora of Kazakhstan] Flora Kazakhstana. Glav.red. N.V.Pavlov.  
Sost.M.B.Baitenov i dr. Alma-Ata, Izd-vo Akad.nauk Kazakhskoi  
SSR. Vol.4. 1961. 545 p. (MIRA 14:4)

1. AN Kazakhskoy SSR (for Pavlov). 2. Chlen-korrespondent  
AN KazSSR (for Bykov).  
(Kazakhstan--Botany)

DOEROKHOTOVA, K.V.; CHUDINOV, V.V.; GENDLIN, M., red.

[Medicinal plants] Lek:rstvennye rastenii. Alma-Ata,  
Kazakhstan, 1965. 178 p. (MIRA 18:8)

USSR/Human and Animal Physiology. Internal Secretions

T

Abs Jour: Ref Zhur-Biol., No 8, 1958, 36665.

Author : Krushinsky, L.V , Dobrokhotova, L.P.

Inst \* :

Title : The Influence of the Thyroid Gland on the Mortality  
Rate in Shock-Hemorrhagic Conditions Caused by Intense  
Sound Stimulants.

Orig Pub: Bul. eksperim. biol. i meditsiny, 1957, 44, No 8,  
46-49.

Abstract: Male rats were submitted to the action of an uninter-  
rupted sound stimulant for  $1\frac{1}{2}$  minutes, and during the  
next 15 minutes at intervals of 10 seconds After a  
3 minute pause the stimulation was applied again.  
Death as a result of a shock-hemorrhagic condition  
occurred in 66.6% of rats. In rats rendered hyper-

Card : 1/2 \* *из лаборатории патофизиологии, кафедр физиологии высшей  
нервной деятельности, биолого-почвенного факультета  
Московского Университета*

USSR/Human and Animal Physiology. Internal Secretions.

T

Abs Jour: Rcf Zhur-Biol., No 8, 1958, 36665.

thyroid, (0.025-0.1 gm % of thyroidine during a 10-14 day course) death occurred in 8.3%. Following thyro-parathyroidectomy (after 10-14 days) the mortality was 25.7% and in controls (parathyroidectomy) 42.9%.

Card : 2/2

82



AUTHOR: Dobrokhotova, L. P.

20-114-6-51/54

TITLE: The Influence Exerted by Methylthiouracyl Upon Shock-Hemorrhagic Conditions Developing Under the Influence of a Nerve Trauma (Vliyaniye metiltiouratsila na shokovogemorragicheskiye sostoyaniya, razvivayushchiyesya pod vliyaniyem nervnoy travmy).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 114, Nr 6, pp. 1320-1321 (USSR)

ABSTRACT: The conditions of shock which are obtained in rats exclusively by the action of a functional traumatization of the nervous system are a consequence of the high nervous excitation of the animals. They are often accompanied by epilepsy-like fits developing as response to the sound of an electric bell. The animals thus treated for 1,5 minutes fall into a great excitation which is followed by a rapid sinking of the blood pressure (to 48 mm torr.). In the period of a longer nerve trauma (15-20 minutes) by uninterrupted stimuli a superliminal inhibition is produced. It manifests itself in the distortion of the motor answer-reactions to strong and weak stimuli. Pareses, paralyzes, nystagmi, epiphora, "areflections" and others often occur. The application of a strong stimulus after a short interruption causes a sudden outburst of

Card 1/3

The Influence Exerted by Methylthiouracyl Upon Shock-Hemorrhagic Conditions Developing Under the Influence of a Nerve Trauma

20-114-6-51/54

of excitation which in 12% of the animals ends with death due to hemorrhages of the brain (by means of diapedesis. It was proved that the endocrinous glands play an important part in these cerebral hemorrhages. Males perish twice as often from them than females. The castration of the former protects them from this pathology. The removal of the parathyroid glands causes a greater frequency of the letal endings under shock-hemorrhagic conditions. The thyroid gland plays a leading part in the pathogenesis of these conditions. A previous introduction of thyreoidine leads to an 8 times higher mortality rate of the rats as compared to the control. In order to prove the specific part played by the thyroid gland the author made tests with the introduction of an anti-thyreoid substance, methylthiouracyl. The doses were 12-60 mg per animal which was then nerve-traumatized. The method of testing the animals was described earlier (reference 1). The animals which got methylthiouracyl showed a 2,7 fold lower mortality than the control. The test group had 40,0 % animals with cerebral hemorrhages, whereas in the

Card 2/3

The Influence Exerted by Methylthiouracyl Upon Shock- Hemorrhagic Conditions Developing Under the Influence of a Nerve Trauma 20-114-6-51/54

control group 68,8% of the perished animals had cerebral hemorrhages. The state of the animals of the control group also was worse than that of the test group. The above-described tests prove the functional importance of the thyroid gland for shock-hemorrhagic states. They indicate a fundamental possibility of the use of anti-thyroid preparations for preventing such states. There is 1 references, 1 of which is Slavic.

ASSOCIATION: Moscow State University, imeni M. V. Lomonosov, Moscow  
(Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova)

PRESENTED: March 30, 1957, by A. D. Speranskiy, Academician

SUBMITTED: March 27, 1957

AVAILABILITY: Library of the USSR Academy of Sciences

Card 3/3

DOBROKHOTOVA, L.P., Cand Biol Sci -- (diss) "Role of the thyroid glands in the development of shock-hemorrhage states." Mos, 1958, 15 pp (Mos Order of Lenin and Order of Labor Red Banner State Univ in M.V. Lomonosov. Biol Soil Faculty. Chair of Physiology of ~~the~~ Higher Nervous Activity. Laboratory of Pathophysiology of Higher Nervous Activity) 110 copies (KL, 50-58, 122)

~~DOBROKHOTOV, L.P.~~

Effect of hyperthyroidism on functional conditions of the central nervous system during the development of hemorrhagic shock in animals following neural trauma. [with summary in English]. Probl.endok. i gorm. 4 no.3:12-21 My-Je '58 (MIRA 11:8)

1. Iz kafedry fiziologii vysshey nervnoy deyatel'nosti (zav. - prof. L.G. Voronin) i laboratoriya patofiziologii (zav. - doktor biol.nauk L.V. Krushinskiy) Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova.

(SHOCK, experimental,  
eff. of thyroxin on CNS excitability in cerebral hemorrh.  
(Rus))  
(CEREBRAL HEMORRHAGE, experimental,  
eff. of thyroxin on CNS excitability in shock (Rus))  
(THYROXIN, effects,  
on CNS excitability in exper. shock in cerebral hemorrh.  
(Rus))  
(CENTRAL NERVOUS SYSTEM, physiology  
excitability, eff. of thyroxin in exper. shock in  
cerebral hemorrh. (Rus))

DOBROKHOTOVA, M. A.

"On the Boundedness of the Solutions of Linear Differential Equations of the Third Order." Cand Phys-Math Sci, Moscow Order of Lenin State U imeni M. V. Lomonosov, 26 Nov 54. (VM, 16 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No.521, 2 Jun 55

DOBROKHOTOVA, M.A.

Boundedness of solutions to linear differential equations  
of third order. Uch. zap. IAr. gos. ped. inst. no.34:19-34  
'60. (MIRA 15:9)  
(Differential equations)

16.3400

39379

S/044/62/000/006/019/127  
B158/B112

AUTHOR: Dobrokhotova, M. A.

TITLE: The question of stability of third-order linear systems

PERIODICAL: Referativnyy zhurnal. Matematika, no. 6, 1962, 60, abstract  
6B254 (Uch. zap. Yaroslavsk. tekhnol. in-ta, v. 7, 1961,  
37 - 43)

TEXT: The author writes the solution of the equation  
 $y''' + Q(x)y' + R(x)y = 0$  (1)

in the form:  $y = A(x) \left\{ c_1 \cos \left[ \int_{x_0}^x \omega(t) dt + c_2 \right] + c_3 \int_{x_0}^x A(t) \sin \int_t^x \omega d\tau dt \right\}$ , (2)

where  $A(x) = \exp \int_{x_0}^x \frac{-B(t)}{2} dt / \sqrt{\omega(x)}$ ;  $B(x)$  and  $q(x)$  are defined from the

operator expansion:  $y''' + Qy' + Ry \equiv \left( \frac{d}{dx} - B \right) \left( \frac{d^2}{dx^2} + B \frac{d}{dx} + q \right) y$ ,

Obtaining the variable frequency of the equation  $z'' + Bz' + qz = 0$ ;  $c_1, c_2$ ,  
Card 1/2



The question of stability ...

S/044/62/000/006/019/127  
B158/B112

and  $c_3$  are arbitrary constants. It is proved that when  $f(x) > 0$  ( $\in C^{(2)}$ ) on  $x \gg x_0$ , which monotonically tends to a positive bound (finite or infinite), the solutions of the equation

$$y''' - \frac{f'(x)}{f(x)} y'' + \left\{ f^2(x) - \frac{f''(x)}{f(x)} + \left[ \frac{f'(x)}{f(x)} \right]^2 \right\} y' + 2f(x)f'(x) y = 0$$

and their derivatives remain bounded. In particular, if in (1)

$\int_{x_0}^{\infty} |R(x)| dx < \infty$  and such a constant  $q$  exists that  $\int_{x_0}^{\infty} |Q(x) - q^2| dx < \infty$ , the

solutions of (1) and their derivatives remain bounded on  $x \gg x_0$ . Printing

errors occur in the derivation of (2). Moreover,  $\int_{x_0}^{\infty} R(\xi) d\xi < \infty$  is al-

ways written instead of  $\int_{x_0}^{\infty} |R(x)| dx < \infty$ . [Abstracter's note: Complete translation.]

Card 2/2

DOBROKHOTOVA, M.A.

M.V.Lomonosov on mathematics. Dokl. na nauch. konf. 1 no.3:4-12  
'62. (MIRA 16:8)  
(Lomonosov, Mikhail Vasil'evich, 1711-1765)

DOBROKHOTOVA, M.A.

Boundedness of the solutions to certain third-order equations.  
Dokl. na nauch. konf. 1 no.3:40-45 '62. (MIRA 16:8)  
(Linear equations)

SKOPETS, Z.A. (Yaroslavl'); MAYOROV, V.M. (Drezden); YAGLOM, I.M.  
(Moskva); DOEROKHOTOVA, M.A. (Yaroslavl')

Selected problems and theorems and special methods for their  
solution. Part 2. Mat. v shkole no.3:90 My-Je '63.

(MIRA 16:7)

(Mathematics—Problems, exercises, etc.)

DOBROKHOTOVA, M.A. (Yaroslavl')

Use of the summation method in solving problems. Mat. v shkole  
no.3:94-95 My-Je '63. (MIRA 16:7)

(Mathematics--Problems, exercises, etc.)

45656

S/191/63/000/003/005/022  
B101/B186

15.8080

AUTHORS: Levantovskaya, I. I., Yazvickova, M. P., Dobrokhotova, M. K.,  
Kovarskaya, B. M., Vlasova, K. N.

TITLE: Thermooxidative degradation and stabilization of some poly-  
amides

PERIODICAL: Plasticheskiye massy, no. 3, 1963, 19 - 23

TEXT: This is a study of the kinetics of oxidation of polycaproamide (I),  
polyamide 68 (II) (a polycondensate of the SH salt), and copolymer 548 (III)  
(polycondensate of hexamethylene diamine adipate, hexamethylene diamine  
sebacinate, and  $\epsilon$ -caprolactam). The decrease in oxygen pressure was deter-  
mined at initial  $p_{O_2} = 200$  mm Hg and 130 - 200°C or at 200°C and changing

$p_{O_2}$ . The kinetic curves of oxidation were s-shaped especially at low  
temperatures or low  $p_{O_2}$ . The induction period was 10-20 min. A slower  
drop in pressure at a longer oxidation time is explained by liberation of  
Card 1/2

Thermooxidative degradation ....

S/191/63/000/003/005/022  
B101/B186

gaseous oxidation products proved chromatographically in (I). At 130° and  $P_{O_2} = 200$  mm Hg,  $O_2$  was noticeably adsorbed by I and II, the stability of I being larger than that of II. III was oxidized more easily than I and II. The effect of the following stabilizers was tested; 0.2% KI; 0.2% copper naphthenate; 0.1% KI + 0.1% copper naphthenate; 0.5% diphenyl amine; N-iso-propyl-N'-phenyl-p-phenylene diamine; N,N'-di-sec-octyl-p-phenylene diamine; N,N'-di-sec-nonyl-p-phenylene diamine; N,N'-di-β'-naphthyl-p-phenylene diamine; phenyl-β-naphthyl amine (Neozone D); N-phenyl-n'-cyclohexyl-p-phenylene diamine; α- and β-naphthol; 2,6-di-tert-butyl-4-methyl phenol (ionol); 2,2-methylene-bis-(4-methyl-6-tert-butyl)-phenol (2246) propyl gallate; phenol styrene condensation product; mercaptobenzimidazole; tri-nonyl triphenylene phosphite; and polyphosphites as well as the photo-stabilizers 2-hydroxy-4-methoxy-benzophenone and 2,2'-hydroxy-5'-methyl-phenyl benzo triazole. Results: Aromatic amines were more effective than phenols and naphthols. N,N'-di-β'-naphthyl-p-phenylene diamine was most active for I and II; Neozone D, however, for II. The mixture containing 0.1% KI and 0.1% copper naphthenate had a strong protective effect in I and II. There are 9 figures.

Card 2/2

ACCESSION NR: AP4009829

S/0191/64/000/001/0014/0016

AUTHORS: Vlasova, K. N.; Morozov, N. A.; Dobrokhotova, M. K.;  
Nosova, L. A.; Ivanova, G. P.

TITLE: Finely dispersed polyamides and antifriction coatings there-  
from

SOURCE: Plasticheskiye massy\*, no. 1, 1964, 14-16

TOPIC TAGS: polyamide, powder, spray coating, fluidized  
bed coating, antifriction coating, polyamide coated ferrous metal,  
polyamide coated nonferrous metal, coating property, coating

ABSTRACT: Finely dispersed polyamide powders of 100 to 300 microns  
can be prepared by dissolving the polyamide in caprolactam at 180-  
200C, cooling, and adding water to precipitate the polyamide and  
remove the solvent. The process can be batch or continuous. The  
polyamide may be applied by gas flame spray coating. Antifriction  
fillers such as graphite, disulfides or molybdenum may be added  
during spray coating as long as their particle size is less than that  
of the polyamide. Pigments may also be added. The coatings on

Card 1/2



ACCESSION NR: AP4009829

steels, aluminum and its alloys, and iron and cast iron have adhesive strengths of 400-500 kgs/cm; on nonferrous metals the adhesive strength is less. Articles of various configurations thus coated have good antifriction properties, attractive appearance, are stable to organic acids, alkali solutions and mineral oils, but do peel in aqueous media. The polyamide powders can also be applied in a fluid bed. Polycapramide coatings on aluminum-steel bearings give significantly greater wear resistance (2 times) and abrasion resistance (20-50 times) than babbit B-83 or alloy ASM. The cost of restoring articles by coating with polyamides is 5 times less than the cost of new articles. Orig. art. has: 2 figures.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 10Feb64

ENCL: 00

SUB CODE: MA, ML

NR REF SOV: 002

OTHER: 005

Card 2/2

L 20805-66 EWP(j)/EWT(m)/T IJP(c) RM/WW

ACC NR: AP6005944

(A)

SOURCE CODE: UR/0191/66/000/002/0008/0009

AUTHORS: Vlasova, K. N.; Antropova, N. I.; Dobrokhotova, M. K.; Pavlova, G. I.; Iyadyasheva, Ye. K.

ORG: none

TITLE: Copolymers of  $\epsilon$ -caprolactam and mixture of isomers of C-methylcaprolactam

SOURCE: Plasticheskiye massy, no. 2, 1966, 8-9

TOPIC TAGS: copolymerization, elasticity, lactam, isomer, copolymer, solid mechanical property, elasticity

ABSTRACT: A mixture of isomers of C-methylcaprolactam (I), b.p. 124-126C/5--6 mm, was copolymerized with  $\epsilon$ -caprolactam in the presence of alkaline (metallic sodium) or acid (orthophosphoric acid) catalysts. Physical and mechanical properties were investigated. Melting point and specific viscosity of the copolymer are lowered with increased proportion of I, as illustrated in Fig. 1. Copolymers containing more than 40% of I are soluble in alcohol and can be used for preparation of films. The product is more highly elastic than polycaprolactam. It can be manufactured from the melt by a continuous method on machines used for manufacturing film PK-4, making its production even more attractive.

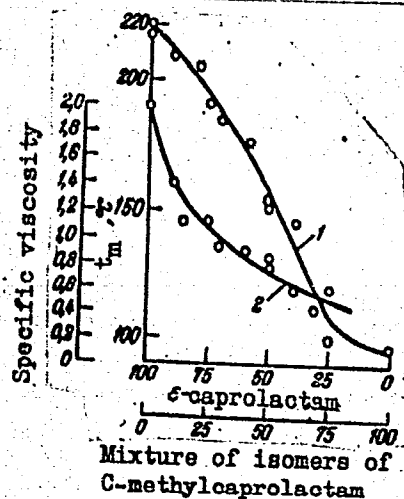
Card 1/2

UDC: 678.675

L 20805-66

ACC NR: AP6005944

Fig. 1. Melting point  $t_m$  and specific viscosity of copolymers as functions of the ratio of  $\epsilon$ -caprolactam and mixture of C-methylcaprolactam (weight %); 1 - melting point; 2 - specific viscosity.



Orig. art. has: 1 table and 2 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 002

Card 2/2

L 39716-66 EWP(j)/EWI(m)/T IJP(c) RM/WW/CD-2

ACC NR: AP6007965

(N)

SOURCE CODE: UR/0191/66/000/003/0020/0021

AUTHOR: Dobrokhotova, M. K.; Vlasova, K. N.; Lyadyasheva, Ye. K.; Kutuzova, S. L.

ORG: none

TITLE: Polyamide prepared from decanedicarboxylic acid and hexamethylenediamineSOURCE: Plasticheskiye massy, no. 3, 1966, 20-21

TOPIC TAGS: polyamide, organic synthetic process, impact strength, absorption coefficient, dielectric permeability, tensile strength, bending strength, specific density

ABSTRACT: The authors studied the synthesis and properties of the polyamide PDG obtained by a reaction of decanedicarboxylic acid with hexamethylenediamide. Polymerization was performed at 260C. By the common industrial method the reagents formed a salt that melted at 182-184C. Synthesized PDG melted at 218-221C, contained <1.5% of monomer or low-molecular-weight products, and a 0.5% solution of PDG in "tricresol" had a specific viscosity of 0.7-0.8. The thermomechanical curve of PDG is a typical curve of crystalline compounds (Fig. 1). The physicomachanical properties of PDG, determined on samples molded at 250C and then at 35-40C and conditioned for 3 days in a 65% relative humidity atmosphere at 20-22C, are tabulated below:

Card 1/2

UDC: 678.675'4'4

L 39716-66

ACC NR: AP6007965

3

| Properties                             | PDG                 | Resin no. 68        |
|--|---------------------|---------------------|
| Density, g/cm <sup>3</sup>             | 1.09                | 1.10                |
| Impact strength, kg·cm/cm <sup>2</sup> | 110-120             | 110-120             |
| Strength, kg/cm <sup>2</sup>           |                     |                     |
| bending                                | 860-920             | 800-900             |
| tensile                                | 450-500             | 450-500             |
| Water absorption, %                    |                     |                     |
| 1 hour boiling                         | 0.45-0.6            | 1.0                 |
| maximal                                | ~2                  | ~3                  |
| $\rho_1$ , ohm                         | $6.3 \cdot 10^{15}$ | $4.6 \cdot 10^{14}$ |
| $\rho_s$ , ohm · cm                    | $2.5 \cdot 10^{15}$ | $7.1 \cdot 10^{14}$ |
| $\tan \delta$ at 10 <sup>6</sup> cps   | 0.016               | 0.03                |
| Dielectric permeability                | 3.9                 | 4.2                 |

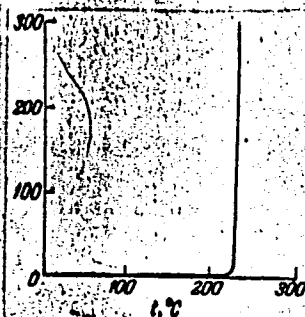


Fig. 1

Decanedicarboxylic acid was prepared by L.I. Zakharkin and V.V. Korneva. Orig. art. has: 1 fig. and 1 table.

SUB CODE: 07,20/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001

Card 2/2 *ad*

89917

15.845D  
158110

S/191/61/000/002/004/012  
B118/B203

AUTHORS: Vlasova, K. N., Akutin, M.S., Dobrokhotova, M. L.,  
Yemel'yanova, L. N.

TITLE: Polyamide epoxy resins as initial products for  
glass-reinforced plastics

PERIODICAL: Plasticheskiye massy, no. 2, 1961, 17 - 22

TEXT: No data have been published as yet on the use of polyamide resins as binding agents for glass-reinforced plastics because of their poor adhesion to glass. Methylol polyamide resins are distinguished by very high adhesive power, but glass-reinforced plastics made with them are insufficiently hard and of low resistance to water. On the basis of the good adhesion of epoxy resins, their stability against water, their hardness and brittleness, the authors considered it to be convenient to combine these resins with the high-elastic polyamide resins, and to examine whether the resulting polymer can be used as a binding agent. An attempt of obtaining a homogeneous polymer by mixing solutions of epoxy, polyamide, and methy-

Card 1/6

89917

S/191/61/000/002/004/012

B118/B203

Polyamide epoxy resins ...

lol polyamide resins was unsuccessful since the mixture did not solidify on heating. Only by synthesizing the polyamides via the intermediate stage of methylol polyamides and reacting them with diphenylol propane and epichlorohydrin it was possible to obtain a grafted polymer. On heating, the resulting resin passes over into an unmeltable and insoluble state. Condensation and hardening of resins were studied in different variations; the reactions of diphenylol propane with formaldehyde, of epichlorohydrin with formaldehyde, and of diphenylol propane with methylol polyamide were investigated. The studies confirmed the assumption of the character of reaction of these resins. The analysis showed that the following scheme holds for methylol polyamides resulting from the reaction of formaldehyde with polyamides via the methylol groups with the epoxy groups of the epoxy resin and with the methylol groups of the diphenylol propane radical in the epoxy resin:

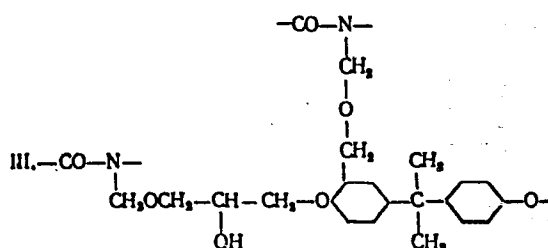
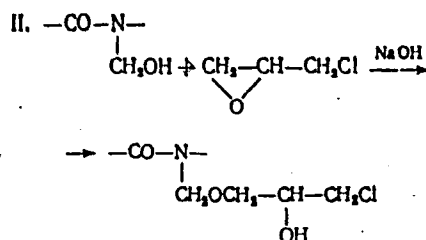
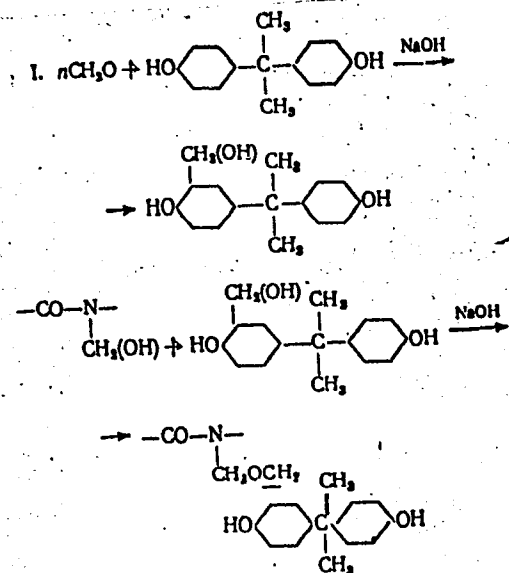
Card 2/6

89927

S/191/61/000/002/004/012

B118/B203

Polyamide epoxy resins ...



Card 3/6



89917

S/191/61/000/002/004/012

B118/B203

Polyamide epoxy resins ...

To determine the optimum conditions, the authors synthesized resins with various component ratios. The polymerization rate, the adhesive power to various materials, the stability against water, and the content of methyl-, methoxy-alkyl-, epoxy-, and hydroxyl groups were determined for the resins synthesized. Table 6 gives the physico-mechanical properties of glass-reinforced plastics obtained with the aid of modified polyamide resins. Laminated plastics on the basis of synthetic fibers and polyamide epoxy binding agents can be used for lightweight, stable building materials since they show good elasticity and durability as well as good dielectric properties. Among all modifications, the type ПЭМ-2 (PEM - 2) shows the best properties: it can be recommended as a building and heat-insulating material; it remains intact in the temperature range of  $\pm 200^{\circ}\text{C}$  maintaining its sufficiently high physical and mechanical properties. There are 2 figures and 10 tables.

Card 1/6

89917

S/191/61/000/002/004/012

B118/B203

Polyamide epoxy resins ...

Физико-механические свойства стеклопластиков на основе модифицированных полнаимидных

| 1 Смола  | 2 Содержание связующего % | 3 Удельная ударная вязкость кг·см/см² | 4 Предел прочности, кг/см² |              |                  | 5 Твердость по Бринеллю кг/мм² | 6 Теплоустойчивость по Мартенсу °С |
|--|---------------------------|---------------------------------------|----------------------------|--------------|------------------|--------------------------------|------------------------------------|
|  |                           |                                       | а при изгибе               | б при сжатии | в при растяжении |                                |                                    |
| 9 Метилполнаимидная ПФФ-2/10                             | 25                        | 250—270                               | 1250—1350                  | 1500—1900    | 2500             | 22,5                           | 150                                |
| 10 Полнаимидная 54/21                                    | 25                        | 260                                   | 1300                       | 1800         | 3000             | 15—18                          | 130                                |
|  |                           | 240—300                               | 1000—1300                  | 3000         | 2700             |                                |                                    |
| 11 Модифицированная полнаимидо-фенольная МПФ-1           | 25                        | 250                                   | 1100                       | 4000         | 3000             | 20—25                          | 160—180                            |
|  |                           | 260—330                               | 1900—2200                  | 2000—3000    | 2700—3300        |                                |                                    |
| 12 Модифицированная полнаимидо-полиэфирная МПС-1         | 25                        | 300                                   | 2000                       | 2500         | 3000             | 25—28                          | 160—170                            |
|  |                           | 200—250                               | 1600—2400                  | 2000—3000    | 2000—3000        |                                |                                    |
| 13 Модифицированная полнаимидо-меламинно-формальдегидная | 25                        | 210                                   | 2200                       | 2700         | 2700             | 40—45                          | 180—200                            |
|  |                           | —                                     | 1200—1700                  | 2200—3800    | 1500—2200        |                                |                                    |
|  |                           |                                       | 1500                       | 3000         | 1900             |                                |                                    |

Legend to Table 6: 1) resin; 2) content of binding agent; 3) specific

Card 5/6

89917

S/191/61/000/002/004/012

B118/B203

Polyamide epoxy resins ...

resilience,  $\text{kg.cm/cm}^2$ ; 4) limit strength a) on bending; b) on compression; c) on elongation; 5) Brinell hardness; 6) thermostability according to Martens; 7) water adsorption after 30 days; 8) modulus of elasticity,  $\text{kg/cm}^2$ ; 9) methylol polyamide PEF-2/10; 10) polyamide 54/21; 11) modified polyamide phenolic MPF-1; 12) modified polyamide polyester MPS-1; 13) modified polyamide melamine formaldehyde

| Таблица 6 |                               |   |                    |                      |                    |
|-----------|-------------------------------|---|--------------------|----------------------|--------------------|
| СМОЛ      | Водопоглощение за 30 суток, % | Модуль упругости $E$ , $\text{кг/см}^2$ |                    |                      |                    |
|           |                               | 6-8                                     | 14-10 <sup>4</sup> | 12,5-10 <sup>4</sup> | 18-10 <sup>4</sup> |
|           |                               | -                                       | -                  | -                    | -                  |

Card 6/6

ACCESSION NR: AP3001575

8/0191/63/000/006/0015/0018

AUTHOR: Dobrokhotova, M. L.; Ghasanankov, G. M.; Ermolina, A. B.

TITLE: The polyamide film PK-4 in the longitudinal-latitudinal stretch

SOURCE: Plasticheskiye massy, no. 6, 1963, 15-18

TOPIC TAGS: physico-mechanical properties of polyamide film; PK-4 polyamide film, Eta-caprolactamide, structural evaluation

ABSTRACT: PK-4 film is prepared by polymerization of Eta-caprolactamide with a consequent stretching (4 times its size) after its molding. It has a very low thermal conductivity and a capability of being stretched 9 times its original size. It is very rigid and is capable of transmitting ultraviolet light. The investigation was made on the possibility of improving the quality of polyamide film PK-4 by means of surface orientation. The technology of preparation of film samples on the basis of PK-4 film with stretching coefficients of 2.5-2.75 x 2.5-2.7 has been worked out. The properties of these samples were determined and it was shown that a film with good physico-chemical properties can be obtained in both directions. It was also established that the prepared material possesses an increased low temperature resistivity which increases in proportion with the increase of degree of stretching up to -500. The structural particularities of the prepared samples

Card 1/2

ACCESSION NR: AP3001575

are also explained. Orig. art. has: 2 tables and 5 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 003

OTHER: 002

Card 2/2

ACCESSION NR: AP3003302

s/0191/63/000/007/0013/0016

AUTHOR: Vlasova, K. N.; Dobrokhotova, M. L.; Akutin, M. S.; Dukor, A. A.; Chudin, L. I.

TITLE: Glass-reinforced plastics based on low-molecular-weight polyamide and epoxy resins

SOURCE: Plasticheskiye massy, no. 7, 1963, 13-16

TOPIC TAGS: plastics, glass-fabric-reinforced plastics, epoxy resins, phenolic resin, organosilicon resin, glass fabric, curing agents, polyamide resins, water resistance, dielectric properties, EN-L, L-18, L-19, L-20, ENF 15/1, ENK-1 TFE-9, GVS-9.

ABSTRACT: Because low-molecular-weight polyamide resins—oligoamides—are nontoxic curing agents and plasticizers for epoxy resins, formulations based on such resins and amides were studied as binders for glass-fabric-reinforced

Card 1/3

ACCESSION NR: AP3003302

plastics (RP). Resins EN-L (copolymer of ED-5 epoxy resin with an oligoamide (L-18, L-19, or L-20) based on linseed oil esters), ENF15/1 (phenolic-resin-modified EN-L), and ENK-1 (modified TFE-9 organosilicon resin cured with oligoamides) were tested as binders, and glass fabrics ASTT(b) 16/10, satin 8/3, and satin TS 8/3, as reinforcements. The best physico-mechanical properties were exhibited by RP reinforced with the satin fabrics. AGM-3, GZ11/12, and GVS-9 finishes were tested. GVS-9 was the most effective in enhancing the RP's binder-to-reinforcement adhesion and water repellency. Study of the effect of the three oligoamides and of different amide/epoxy ratios on the properties of RP showed that, depending on the amide used, the optimum amide concentration in the binder varies from 20 to 50%. Hence, desired properties of RP can be obtained by selecting the appropriate amide and ratio. Study of manufacturing techniques revealed that RP molded at 100C and less than 5 kg/cm<sup>2</sup> have good physico-mechanical properties and can be produced in cheap metal-plastic molds or by contact molding. For example, RP molded at 2 kg/cm<sup>2</sup> had an impact strength of 259—415 kg cm/cm<sup>2</sup>, a Brinell hardness of 49.8—60.9 kg/mm<sup>2</sup>, a bending

Cord 2/3

ACCESSION NR: AP3003302

strength of 6010—7010 kg/cm<sup>2</sup>, a tensile strength of 5840—6480 kg/cm<sup>2</sup>, and an elastic modulus in bending of (1.6—2.00) 10<sup>5</sup> kg/cm<sup>2</sup> and in tension of (3.65—3.7) 10<sup>5</sup> kg/cm<sup>2</sup>. Additional heat treatment can further improve water resistance, impact strength, and hardness 10—15%. Pot life of the binder can best be increased by the technique of applying amide resin on one side and epoxy resin on the other side of each fabric sheet prior to molding. Two-hour boiling tests indicated that RP based on ENF 15/1 (5% or more phenolic resin) were more water resistant than RP based on EN-L. RP based on ENK-1 had poorer physicommechanical properties than RP based on EN-L but were more heat resistant. The new RP are recommended for use in the electrical and radio industries because of their good dielectric properties.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 30Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 003

OTHER: 001

Card 3/3



ANTROPOVA, N.I.; VLASOVA, K.N.; DOBROKHOTOVA, M.L.

Stabilization of polyamide film materials. Plast. massy no.8:  
16-20 '63. (MIRA 16:8)

(Polyamides)

ACCESSION NR: AP4039953

S/0191/64/Q00/006/0062/0062

AUTHOR: Dobrokhotova, M. L.; Vlasova, K. N.; Dukor, A. A.;  
Antropova, N. I.

TITLE: SN Caprolon

SOURCE: Plasticheskiye massy\*, no. 6, 1964, 62

TOPIC TAGS: polyamide, caprone, Caprolon, glass fabric, reinforced  
Caprolon, Caprolon SN

ABSTRACT: The mechanical and antifriction properties of Caprolon surpass those of caprone and other polyamides. Stronger Caprolon material can be made by reinforcement with glass fabric. Polymerization in the presence of glass fabrics requires special (non-identified) catalysts and activators to control the process, depending on the thickness of the glass-reinforced plastic and the glass content of the material. The glass fabric is subjected beforehand to a special (unspecified) treatment. SN caprolon with a glass fabric content

Card 1/2

ACCESSION NR: AP4039953

of up to 65% has the following properties: impact strength, 250—350 kg/cm<sup>2</sup>; bending strength, 3100—3800 kg/cm<sup>2</sup>; modulus of elasticity in bending,  $1.5 \times 10^4$  kg/cm<sup>2</sup>.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 24Jun64

ENCL: 00

SUB CODE: MT

NO REF SOV: 005

OTHER: 000

Card 2/2

L 23469-65

L 23469-65 EWP(e)/EWT(m)/EPF(c)/EWP(v)/EPR/EWP(i)/T/EWP(L)/EWP(O)  
 Pr-4/Pr-1 SD/WX/3M

L 23469-65

ACCESSION NR: AP4046900

adhesive between metal and GFR was obtained with methylol ether

of titanium or stainless steel increased the bending strength, besides  
art. has: 4 tables and 1 figure.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, 00

NO REF SOV: 009

OTHER: 003

Card 2/2

DOEROKHOTOVA, M. N., Candidate Med Sci (diss) -- "The role of protracted antibacterial therapy in the complex treatment of patients with focal, hematogenic-disseminated and infiltrated tuberculosis of the lungs". Moscow, 1959. 13 pp (Min Health USSR, Central Inst for the Advanced Training of Physicians), 200 copies (KL, No 26, 1959, 127)

DOBROKHOTOVA, M.N.

Late results of prolonged antibacterial therapy for patients with focal, hematogenous-disseminated and infiltrative pulmonary tuberculosis. Sov.med. 23 no.9:92-96 S '59. (MIRA 13:1)

1. Iz kafedry tuberkuleza (zav. - prof. A.Ye. Babukhin) TSentral'nogo instituta usovershenstvovaniya vrachey (dir. V.P. Lebedeva) i TSentral'noy klinicheskoy bol'nitsy imeni N.A. Semashko Ministerstva putey soobshcheniya (nach. A.A. Potsubeyenko).  
(TUBERCULOSIS PULMONARY ther.)

RABUKHIN, A.Ye.; GOKHBERG, V.P.; DOBROKHOTOVA, M.N.; MOROZOVA, L.N.;  
NEFEDOV, A.F. (Moskva)

Effectiveness of prolonged drug therapy for patients with fresh .  
forms of pulmonary tuberculosis. Klin.med. no.12:28-33 '61.  
(MIRA 15:9)

(TUBERCULOSIS)



DOBROKHOTOVA, M.N., kand.med.nauk; MASSEN, N.I.; POLYAKOVA, S.G.; IOFFE,  
R.A.; GOL'DSHTEYN, V.D. (Moskva)

Immediate results of combined chemotherapy with the use of cyclo-  
serine. Klin.med. no.3:130-136 '62. (MIRA 15:3)

1. Iz kafedry tuberkuleza (zav. - zasluzhennyy deyatel' nauki  
prof. A.Ye. Rabukhin) Tsentral'nogo instituta usovershenstvovaniya  
vrachev, Tsentral'noy klinicheskoy bol'nitsy imeni Semashko  
Ministerstva putey soobshcheniya (glavnyy vrach A.A. Potsubeyenko)  
i bol'nitsy "Vysokiye gory" (glavnyy vrach V.G. Samochatov).  
(CYCLOSERINE) (CHEMOTHERAPY)

TOPCHYEVA, K.V.; MOSKOVSKAYA, I.F.; DOBROKHOTOVA, N.A.

Use of thermometric titration for measuring the acidity of solid  
oxide catalysts. Kin. i kat. 5 no.5:910-915 S-0 '64. (MIRA 17:12)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

GAR, K.A.; DOBROKHOTOVA, N.M.; YEVTEYEVA, N.V.

Studying the processes of penetration and metabolism of some  
organic insecticides in insects and plants. [Trudy] NIUIF  
no.164:5-6 '59. (MIRA 15:5)  
(Insecticides) (Succinic dehydrogenase)

DOBROKHOTOVA, O. V.

"Parasites of the Fish in Lake Zaysan in Relation to the Building up of the Lake's Ichthyofauna." Cand Biol Sci, Inst of Zoology, Acad Sci Kazakh SSR, Alma-Ata, 1953. (RZhBiol, No, Sep 54)

SO: Sum 432, 29 Mar 55